

We claim:

1. A method of preparing a fully human antibody recognizing an antigen, comprising:
 - (a) providing a group of lymphocytes from a naive human donor;
 - (b) immunizing said lymphocytes with the antigen *in vitro*;
 - (c) fusing the immunized lymphocytes with a heteromyeloma cell line to form trioma cells;
 - (d) identifying trioma cells that produce an antibody that recognizes the antigen; and
 - (e) collecting the antibody produced by the trioma cells identified in step (d).
2. The method of claim 1 further comprising the step of removing CD8⁺ cells and CD56⁺ cells from said lymphocytes prior to step (b).
3. The method of claim 1 further comprising screening the trioma cells of step (c) with a second antigen prior to step (d), thereby selecting cells that produce antibodies which recognize both the antigen and the second antigen.
4. The method of claim 1 wherein the antibody recognizes the antigen with a Kd of about 30 nM or less.
5. The method of claim 1 wherein the antibody is an IgG antibody.
6. The method of claim 1 wherein the antibody is an IgG1 antibody.
7. The method of claim 1 wherein the trioma cells of step (d) are capable of producing the antibody for at least about 3 months in cell culture.
8. The method of claim 1 wherein the trioma cells of step (d) are capable of producing the antibody for at least about 6 months in cell culture.

9. The method of claim 1 wherein the trioma cells of step (d) are capable of producing the antibody for at least about 9 months in cell culture.
10. The method of claim 1 wherein the trioma cells of step (d) are capable of producing the antibody for at least about 12 months in cell culture.
11. The method of claim 1 wherein the antigen is an HIV antigen.
12. The method of claim 11 wherein the antigen is derived from gp120.
13. The method of claim 12 wherein the antigen comprises the co-receptor binding region of gp120.
14. The method of claim 1 wherein the antigen comprises a T-helper sequence.
15. An isolated fully human antibody, or an antigen-binding fragment thereof, wherein the antibody recognizes at least two strains of HIV.
16. The antibody or fragment of claim 15 that recognizes the gp120 of at least two strains of HIV.
17. The antibody or fragment of claim 16 that recognizes the co-receptor binding region of gp120.
18. The antibody or fragment of claim 17 that recognizes at least two sequences selected from the group consisting SEQ ID NOS:2-17.
19. The antibody or fragment of claim 15 wherein the antibody is an IgG.
20. The antibody or fragment of claim 15 wherein the antibody is an IgG1.
21. A composition comprising the antibody or fragment of claim 15.

22. The composition of claim 21 further comprising a pharmaceutically acceptable carrier or excipient.
23. A method for preventing, treating or ameliorating an HIV infection comprising administering an effective amount of the composition of claim 21 to a subject in need thereof.
24. The method of claim 23 wherein the subject suffers from AIDS.
25. A method of preparing a fully human antibody recognizing at least two different antigens, comprising:
 - (a) providing a group of lymphocytes from a naive human donor;
 - (b) immunizing said lymphocytes with a first antigen *in vitro*;
 - (c) fusing the immunized lymphocytes with a heteromyeloma cell line to form trioma cells;
 - (d) screening the trioma cells with a second antigen to identify cells that produce antibodies which recognize both the first antigen and the second antigen; and
 - (e) collecting the antibody produced by the trioma cells identified in step (d).
26. The method of claim 25 wherein the first antigen and the second antigen are from a microorganism.
27. The method of claim 25 wherein the first antigen and the second antigen are from two different strains of a microorganism.
28. The method of claim 27 wherein the microorganism is HIV.
29. The method of claim 28 wherein the first antigen and the second antigen are derived from gp120.

30. A method of increasing the efficiency of *in vitro* immunization of lymphocytes with an antigen, comprising:
 - (a) providing a population of lymphocytes;
 - (b) removing CD8⁺ and CD56⁺ cells from said population; and
 - (c) contacting said population of lymphocytes with the antigen *in vitro*.
31. The method of claim 30 wherein the CD8⁺ and CD56⁺ cells are removed by using magnetic beads specific for CD8 and CD56.
32. An *in vitro* cell population prepared by a method comprising:
 - (a) providing peripheral blood mononuclear cells from a naive human donor;
 - (b) removing CD8⁺ and CD56⁺ cells from said peripheral blood mononuclear cells; and
 - (c) contacting the cells of step (b) with an antigen *in vitro*, resulting in production by the cells of antibodies that recognize said antigen.
33. An antibody-producing cell prepared by culturing the cell population of claim 32 under clonal conditions and isolating clones that produce antibodies that recognize said antigen.
34. The antibody-producing cell of claim 33 that produces antibodies that recognize HIV gp120.
35. The antibody-producing cell of claim 34 which produces antibodies that recognize at least two gp120 molecules derived from different strains of HIV.